

1. Use Booth's algorithm to show how to multiply $5 \times 6 = 30$ using 8 bit numbers. Fill in the sequential tables below to show each step of the algorithm. The first three table sequences have been filled in for you as an example.

Product	0	0	0	0	0	0	0	0	Multiplier 0110_ 0 → 0 so nothing
Multiplicand	0	0	0	0	0	1	0	1	
Product	0	0	0	0	0	0	0	0	

Product	0	0	0	0	0	0	0	0	Shift
Multiplicand	0	0	0	0	1	0	1	0	
Product	0	0	0	0	0	0	0	0	

Product	0	0	0	0	0	0	0	0	Multiplier 0110 0 → 1 so subtract
Multiplicand	0	0	0	0	1	0	1	0	
Product	1	1	1	1	0	1	1	0	

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